

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P879447

Luminaire Tested: **LD4C50D010 EU4509050 4LBLDWWLI**

Issue Date: 10/1/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P879447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C50D010 EU4509050 4LBLDWWLI
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

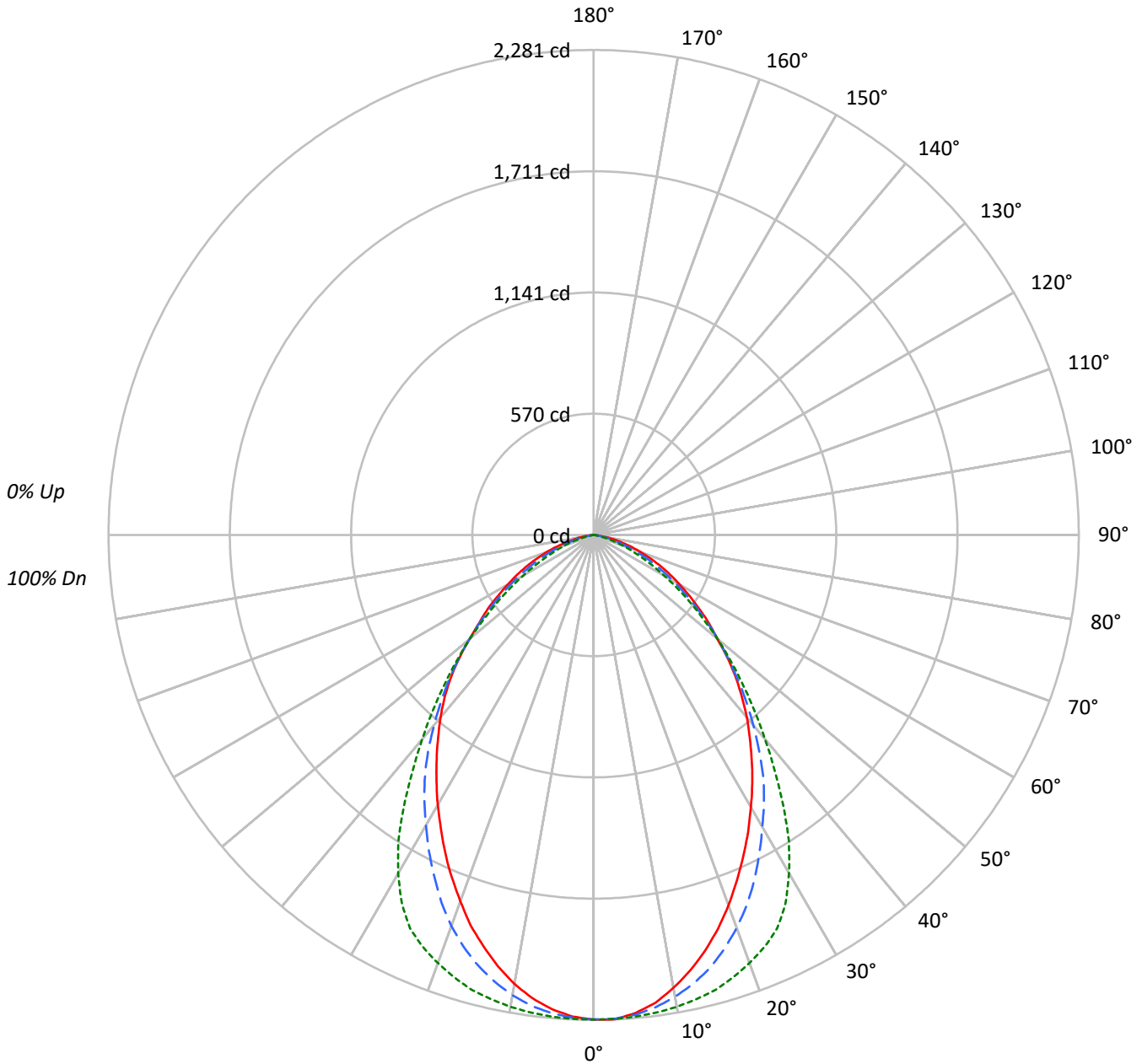
Lumens per Lamp: N/A
Luminaire Lumens: 4186.0 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 58.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P879447

CATALOG NUMBER: LD4C50D010 EU4509050 4LBLDWWLI

Luminous Intensity Polar Plot





TEST NUMBER: P879447

CATALOG NUMBER: LD4C50D010 EU4509050 4LBLDWWLI

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	280020	280020	280020
5°	278352	280448	276243
10°	269869	281146	267536
15°	257478	281758	254654
20°	242270	280158	239590
25°	225656	276842	223813
30°	209668	260694	207979
35°	194444	233168	193035
40°	179763	201077	179619
45°	163786	171639	165123
50°	144663	145160	145485
55°	129627	118660	130162
60°	114549	94253	114770
65°	100842	71860	99854
70°	83586	51437	83586
75°	65125	29524	62704
80°	42237	7216	40397
85°	15646	2396	11981



TEST NUMBER: P879447

CATALOG NUMBER: LD4C50D010 EU4509050 4LBDWWLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.0	5.1
10°-20°	592.0	14.1
20°-30°	827.5	19.8
30°-40°	872.9	20.9
40°-50°	742.6	17.7
50°-60°	524.0	12.5
60°-70°	297.0	7.1
70°-80°	106.0	2.5
80°-90°	10.2	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1633.4	39.0
0°-40°	2506.3	59.9
0°-60°	3772.8	90.1
0°-90°	4186.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4186.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2279	2279	2279	2279	2279	
5°	2257	2265	2274	2258	2240	213
15°	2024	2110	2215	2098	2002	568
25°	1665	1789	2042	1773	1651	766
35°	1296	1390	1555	1383	1287	811
45°	943	956	988	961	950	725
55°	605	585	554	586	608	544
65°	347	298	247	298	344	344
75°	137	94	62	92	132	148
85°	11	4	2	4	8	20
90°	0	0	0	0	0	



TEST NUMBER: P879447

CATALOG NUMBER: LD4C50D010 EU4509050 4LBDWWLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3
2.5°	2281.0	2276.7	2276.7	2276.7	2276.7	2276.7	2276.7	2276.7	2276.7	2277.5	2277.5
5°	2257.1	2255.4	2254.5	2254.5	2254.5	2254.5	2255.4	2258.8	2260.5	2263.1	2264.8
7.5°	2219.6	2216.2	2217.9	2217.9	2219.6	2221.3	2223.8	2227.3	2232.4	2235.8	2240.0
10°	2163.3	2159.9	2164.2	2165.9	2171.0	2173.6	2177.8	2182.9	2193.2	2198.3	2205.1
12.5°	2097.7	2096.0	2097.7	2104.5	2109.6	2113.0	2118.2	2129.2	2139.5	2150.5	2162.5
15°	2024.4	2020.1	2022.7	2031.2	2039.7	2045.7	2050.0	2064.5	2078.1	2095.1	2109.6
17.5°	1942.6	1936.6	1943.4	1950.2	1961.3	1966.4	1972.4	1988.6	2007.3	2026.1	2042.3
20°	1853.1	1851.4	1855.6	1865.0	1876.1	1882.9	1888.0	1905.9	1922.1	1947.7	1966.4
22.5°	1760.2	1761.9	1765.3	1775.5	1783.2	1792.5	1800.2	1816.4	1835.2	1859.0	1882.9
25°	1664.7	1667.2	1673.2	1680.0	1692.8	1697.9	1707.3	1724.4	1740.6	1762.7	1789.1
27.5°	1572.6	1573.5	1580.3	1583.7	1595.6	1606.7	1611.0	1628.9	1647.6	1664.7	1687.7
30°	1478.0	1480.6	1484.8	1494.2	1506.1	1510.4	1515.5	1531.7	1546.2	1567.5	1585.4
32.5°	1387.7	1386.0	1391.1	1396.2	1409.8	1417.5	1420.1	1438.8	1451.6	1472.9	1490.0
35°	1296.5	1292.2	1299.9	1305.0	1316.9	1323.7	1327.1	1341.6	1353.6	1371.5	1390.2
37.5°	1205.3	1208.7	1212.1	1216.3	1222.3	1224.0	1234.2	1237.6	1253.0	1266.6	1276.9
40°	1120.9	1119.2	1117.5	1121.7	1129.4	1132.8	1133.7	1143.0	1146.4	1160.1	1167.8
42.5°	1030.5	1031.4	1030.5	1031.4	1035.6	1035.6	1038.2	1044.2	1046.7	1051.0	1060.4
45°	942.7	942.7	940.2	941.0	941.9	941.0	941.9	944.4	949.5	949.5	956.4
47.5°	851.5	849.8	853.2	850.7	849.0	848.1	850.7	848.1	853.2	853.2	854.9
50°	756.9	756.9	761.2	760.3	762.0	758.6	759.5	759.5	760.3	759.5	762.9
52.5°	683.6	681.9	680.2	675.9	677.6	674.2	674.2	675.1	672.5	671.7	667.4
55°	605.2	606.9	604.3	602.6	602.6	599.2	598.4	593.3	589.8	587.3	584.7
57.5°	534.4	536.1	535.3	531.0	525.9	526.8	525.1	519.9	512.3	507.2	502.9
60°	466.2	468.0	466.2	462.0	460.3	456.9	456.0	449.2	443.2	436.4	431.3
62.5°	404.9	404.9	404.0	398.1	393.8	394.6	390.4	385.3	377.6	368.2	360.6
65°	346.9	346.1	341.8	339.2	335.8	331.6	329.0	321.3	315.4	307.7	297.5
67.5°	289.0	286.4	284.7	282.1	274.5	273.6	270.2	263.4	254.9	248.9	240.4
70°	232.7	231.8	228.4	228.4	222.5	219.9	214.8	208.8	201.2	192.6	185.8
72.5°	184.1	182.4	179.0	175.6	170.5	168.8	164.5	158.5	151.7	143.2	134.7
75°	137.2	135.5	134.7	130.4	126.2	121.9	120.2	114.2	107.4	101.4	93.8
77.5°	96.3	94.6	92.1	89.5	86.9	84.4	81.8	76.7	70.7	65.6	58.8
80°	59.7	58.0	56.3	55.4	52.8	52.0	48.6	46.0	40.9	37.5	33.2
82.5°	30.7	30.7	29.0	28.1	26.4	25.6	24.7	22.2	19.6	17.0	14.5
85°	11.1	11.1	10.2	9.4	9.4	8.5	8.5	7.7	6.0	6.0	4.3
87.5°	0.9	0.9	1.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P879447

CATALOG NUMBER: LD4C50D010 EU4509050 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3
2.5°	2278.4	2277.5	2278.4	2278.4	2279.3	2279.3	2279.3	2278.4	2279.3	2278.4	2278.4
5°	2264.8	2267.3	2269.0	2270.7	2271.6	2272.4	2272.4	2273.3	2274.1	2274.1	2273.3
7.5°	2243.5	2248.6	2253.7	2257.1	2258.8	2260.5	2263.1	2264.8	2266.5	2265.6	2264.8
10°	2215.3	2223.8	2230.7	2237.5	2240.9	2243.5	2247.7	2251.1	2252.8	2253.7	2251.1
12.5°	2175.3	2187.2	2198.3	2209.4	2214.5	2217.9	2226.4	2232.4	2235.8	2235.8	2233.2
15°	2125.0	2142.0	2158.2	2172.7	2181.2	2186.3	2199.1	2207.7	2212.8	2215.3	2211.1
17.5°	2064.5	2084.1	2103.7	2122.4	2130.9	2138.6	2156.5	2168.4	2179.5	2181.2	2176.1
20°	1986.9	2011.6	2033.8	2056.8	2066.2	2078.1	2098.5	2118.2	2135.2	2142.9	2128.4
22.5°	1899.9	1927.2	1947.7	1975.8	1988.6	2001.4	2027.8	2052.5	2082.4	2098.5	2073.0
25°	1809.6	1832.6	1857.3	1884.6	1902.5	1916.1	1946.8	1978.4	2018.4	2042.3	2006.5
27.5°	1712.4	1732.9	1762.7	1792.5	1806.2	1823.2	1859.9	1894.0	1932.3	1953.6	1927.2
30°	1611.8	1637.4	1665.5	1692.8	1712.4	1728.6	1758.5	1787.4	1819.8	1837.7	1818.1
32.5°	1512.1	1536.8	1560.7	1590.5	1601.6	1616.1	1642.5	1667.2	1692.0	1708.2	1685.1
35°	1407.3	1429.4	1451.6	1472.1	1477.2	1494.2	1515.5	1530.0	1541.9	1554.7	1539.4
37.5°	1293.1	1310.1	1321.2	1343.3	1351.9	1354.4	1371.5	1381.7	1394.5	1397.0	1396.2
40°	1177.1	1192.5	1201.8	1215.5	1222.3	1222.3	1234.2	1243.6	1253.0	1253.8	1253.0
42.5°	1068.9	1076.6	1084.2	1092.7	1091.0	1101.3	1106.4	1110.6	1117.5	1117.5	1119.2
45°	959.8	965.7	972.6	974.3	981.1	981.1	985.3	987.1	990.5	987.9	984.5
47.5°	858.3	860.9	861.8	869.4	871.1	865.2	870.3	871.1	870.3	870.3	868.6
50°	762.0	763.7	762.9	760.3	761.2	763.7	761.2	757.8	759.5	759.5	761.2
52.5°	668.3	664.9	663.1	663.1	659.7	659.7	655.5	653.8	652.9	649.5	653.8
55°	582.2	577.1	569.4	567.7	565.1	564.3	559.2	554.9	553.2	554.0	553.2
57.5°	499.5	491.8	486.7	485.0	482.4	477.3	471.4	467.1	466.2	464.5	464.5
60°	424.5	416.0	408.3	400.6	401.5	398.1	392.1	389.5	387.0	383.6	386.1
62.5°	356.3	346.9	338.4	330.7	325.6	323.1	318.8	314.5	312.0	309.4	312.8
65°	289.0	281.3	271.9	264.2	261.7	259.1	254.9	248.0	247.2	247.2	248.9
67.5°	228.4	219.9	211.4	206.3	202.9	199.5	197.8	194.3	191.8	190.1	190.9
70°	175.6	167.1	160.2	155.1	152.6	151.7	145.8	144.9	144.1	143.2	142.3
72.5°	127.9	121.0	115.1	111.7	108.3	105.7	104.0	101.4	100.6	100.6	100.6
75°	87.8	82.7	75.9	71.6	69.9	67.3	64.8	63.1	61.4	62.2	62.2
77.5°	52.8	47.7	43.5	40.1	39.2	36.7	34.1	32.4	29.8	29.8	30.7
80°	29.0	24.7	21.3	18.8	17.0	16.2	13.6	12.8	11.1	10.2	10.2
82.5°	12.8	10.2	8.5	7.7	6.8	6.0	5.1	4.3	4.3	3.4	4.3
85°	4.3	3.4	2.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
87.5°	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P879447

CATALOG NUMBER: LD4C50D010 EU4509050 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3
2.5°	2277.5	2277.5	2276.7	2276.7	2276.7	2275.0	2275.0	2274.1	2273.3	2272.4	2270.7
5°	2271.6	2270.7	2269.0	2268.2	2267.3	2264.8	2262.2	2260.5	2257.9	2254.5	2252.8
7.5°	2263.1	2260.5	2257.1	2255.4	2252.8	2246.9	2242.6	2238.3	2234.1	2228.1	2221.3
10°	2248.6	2243.5	2238.3	2234.9	2230.7	2223.0	2214.5	2207.7	2198.3	2189.8	2180.4
12.5°	2228.1	2222.1	2211.9	2206.8	2201.7	2190.6	2179.5	2165.0	2152.2	2140.3	2129.2
15°	2202.5	2191.5	2179.5	2172.7	2165.0	2147.1	2130.1	2114.7	2097.7	2083.2	2065.3
17.5°	2165.0	2148.8	2131.8	2124.1	2113.9	2093.4	2073.0	2051.7	2032.1	2014.2	1992.0
20°	2108.8	2090.9	2068.7	2056.8	2048.3	2021.0	2001.4	1977.5	1957.1	1934.9	1910.2
22.5°	2043.1	2018.4	1993.7	1976.7	1967.3	1940.0	1913.6	1892.3	1870.1	1844.5	1826.6
25°	1969.0	1938.3	1908.5	1891.4	1876.9	1848.0	1822.4	1800.2	1772.9	1750.8	1732.9
27.5°	1885.5	1850.5	1815.6	1798.5	1784.9	1753.3	1726.1	1703.0	1676.6	1657.0	1638.3
30°	1785.7	1754.2	1720.9	1707.3	1691.1	1658.7	1627.2	1606.7	1577.7	1557.3	1536.8
32.5°	1661.3	1640.8	1614.4	1595.6	1587.1	1557.3	1530.9	1506.1	1481.4	1465.2	1444.8
35°	1524.9	1507.0	1484.8	1474.6	1463.5	1444.8	1423.5	1402.2	1382.6	1367.2	1348.5
37.5°	1386.8	1368.9	1355.3	1344.2	1337.4	1320.3	1307.5	1291.3	1277.7	1263.2	1253.0
40°	1243.6	1238.5	1224.0	1218.9	1217.2	1198.4	1187.4	1174.6	1166.0	1157.5	1151.6
42.5°	1116.6	1108.1	1097.0	1097.9	1092.7	1082.5	1074.8	1066.3	1060.4	1056.1	1050.1
45°	991.3	984.5	979.4	983.6	975.1	971.7	965.7	964.9	960.6	953.0	950.4
47.5°	872.0	871.1	872.0	869.4	867.7	866.0	866.9	862.6	858.3	855.8	852.4
50°	762.9	763.7	765.4	768.0	762.0	764.6	763.7	762.9	762.9	760.3	762.0
52.5°	657.2	658.0	659.7	662.3	663.1	663.1	665.7	667.4	670.8	675.1	675.1
55°	557.5	563.4	566.8	571.1	568.5	573.6	576.2	583.9	586.4	586.4	589.8
57.5°	468.8	474.8	477.3	482.4	484.1	488.4	495.2	499.5	505.5	510.6	515.7
60°	387.8	390.4	397.2	404.9	403.2	413.4	418.5	425.3	433.0	436.4	443.2
62.5°	315.4	318.8	323.9	326.5	332.4	337.5	349.5	356.3	363.1	371.6	378.5
65°	250.6	254.0	259.1	264.2	266.8	274.5	280.4	292.4	298.3	307.7	315.4
67.5°	191.8	196.9	201.2	204.6	206.3	213.9	223.3	228.4	239.5	248.9	254.9
70°	143.2	147.5	152.6	151.7	155.1	161.1	167.9	175.6	184.1	192.6	199.5
72.5°	99.7	104.0	107.4	108.3	111.7	115.9	121.0	127.0	133.8	142.3	151.7
75°	63.1	63.9	67.3	69.0	70.7	75.9	80.1	86.1	92.1	98.9	104.8
77.5°	31.5	34.1	35.8	37.5	38.4	42.6	46.9	52.0	57.1	63.9	69.9
80°	11.9	12.8	15.3	16.2	17.9	20.5	23.9	26.4	30.7	35.8	39.2
82.5°	4.3	5.1	6.0	6.0	6.8	8.5	9.4	11.9	14.5	16.2	17.9
85°	1.7	1.7	1.7	1.7	1.7	2.6	2.6	3.4	4.3	5.1	5.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P879447

CATALOG NUMBER: LD4C50D010 EU4509050 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3	2279.3
2.5°	2269.9	2269.9	2269.0	2268.2	2268.2	2268.2	2267.3	2267.3
5°	2249.4	2246.9	2246.0	2244.3	2243.5	2242.6	2240.0	2240.0
7.5°	2216.2	2212.8	2210.2	2207.7	2204.2	2201.7	2201.7	2198.3
10°	2171.9	2165.0	2161.6	2158.2	2154.0	2148.8	2147.1	2144.6
12.5°	2118.2	2104.5	2101.1	2095.1	2088.3	2084.9	2078.9	2078.9
15°	2051.7	2037.2	2029.5	2026.1	2017.6	2011.6	2009.0	2002.2
17.5°	1974.1	1963.0	1951.1	1946.0	1936.6	1928.9	1925.5	1924.7
20°	1895.7	1877.8	1870.1	1862.4	1851.4	1844.5	1839.4	1832.6
22.5°	1805.3	1789.1	1778.1	1772.9	1763.6	1751.6	1743.1	1743.1
25°	1709.9	1695.4	1689.4	1678.3	1667.2	1663.0	1652.8	1651.1
27.5°	1618.7	1604.2	1592.2	1586.3	1573.5	1567.5	1559.0	1555.6
30°	1524.0	1507.0	1498.5	1497.6	1482.3	1476.3	1469.5	1466.1
32.5°	1429.4	1414.9	1406.4	1401.3	1394.5	1384.3	1378.3	1374.9
35°	1335.7	1326.3	1318.6	1312.7	1301.6	1296.5	1291.3	1287.1
37.5°	1237.6	1229.1	1225.7	1220.6	1215.5	1206.1	1204.4	1201.0
40°	1143.0	1132.0	1132.0	1128.5	1123.4	1122.6	1120.0	1120.0
42.5°	1044.2	1039.0	1038.2	1039.0	1035.6	1033.9	1031.4	1037.3
45°	946.1	948.7	944.4	945.3	943.6	947.0	947.0	950.4
47.5°	855.8	852.4	854.1	855.8	858.3	858.3	857.5	856.6
50°	759.5	762.9	766.3	762.0	763.7	764.6	760.3	761.2
52.5°	676.8	677.6	680.2	677.6	680.2	679.3	681.0	677.6
55°	596.7	596.7	600.1	600.9	601.8	604.3	605.2	607.7
57.5°	519.1	523.4	527.6	526.8	530.2	533.6	531.0	533.6
60°	451.8	455.2	459.4	461.1	463.7	465.4	465.4	467.1
62.5°	383.6	390.4	393.8	397.2	397.2	400.6	404.0	404.9
65°	322.2	329.9	332.4	335.0	336.7	340.1	344.4	343.5
67.5°	264.2	269.4	272.8	274.5	279.6	281.3	284.7	288.1
70°	207.1	213.9	216.5	219.9	224.2	227.6	231.0	232.7
72.5°	158.5	163.7	165.4	168.8	173.0	176.4	178.1	180.7
75°	110.8	119.3	120.2	122.7	126.2	130.4	133.0	132.1
77.5°	73.3	79.3	80.1	83.5	86.9	90.4	91.2	92.1
80°	43.5	46.9	47.7	49.4	52.0	53.7	55.4	57.1
82.5°	20.5	22.2	23.9	23.9	25.6	27.3	27.3	28.1
85°	6.8	6.8	7.7	7.7	8.5	8.5	9.4	8.5
87.5°	0.9	0.9	0.0	0.9	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)